



Draft Action Plan for Fall 2003 Flow Schedule

Prepared for: Trinity Adaptive
Management Working Group (7/29/03)
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River Restoration Program



Background

- March 18th plan submitted to Judge Wanger
- June 26th memo to TMC



Action Plan Outline

- Expected 2003 River conditions
- Evaluation of March 18th Triggers
- Updated “proactive” flow schedule
- Additional real-time disease monitoring and “emergency” response.
- Monitoring and evaluation plan.



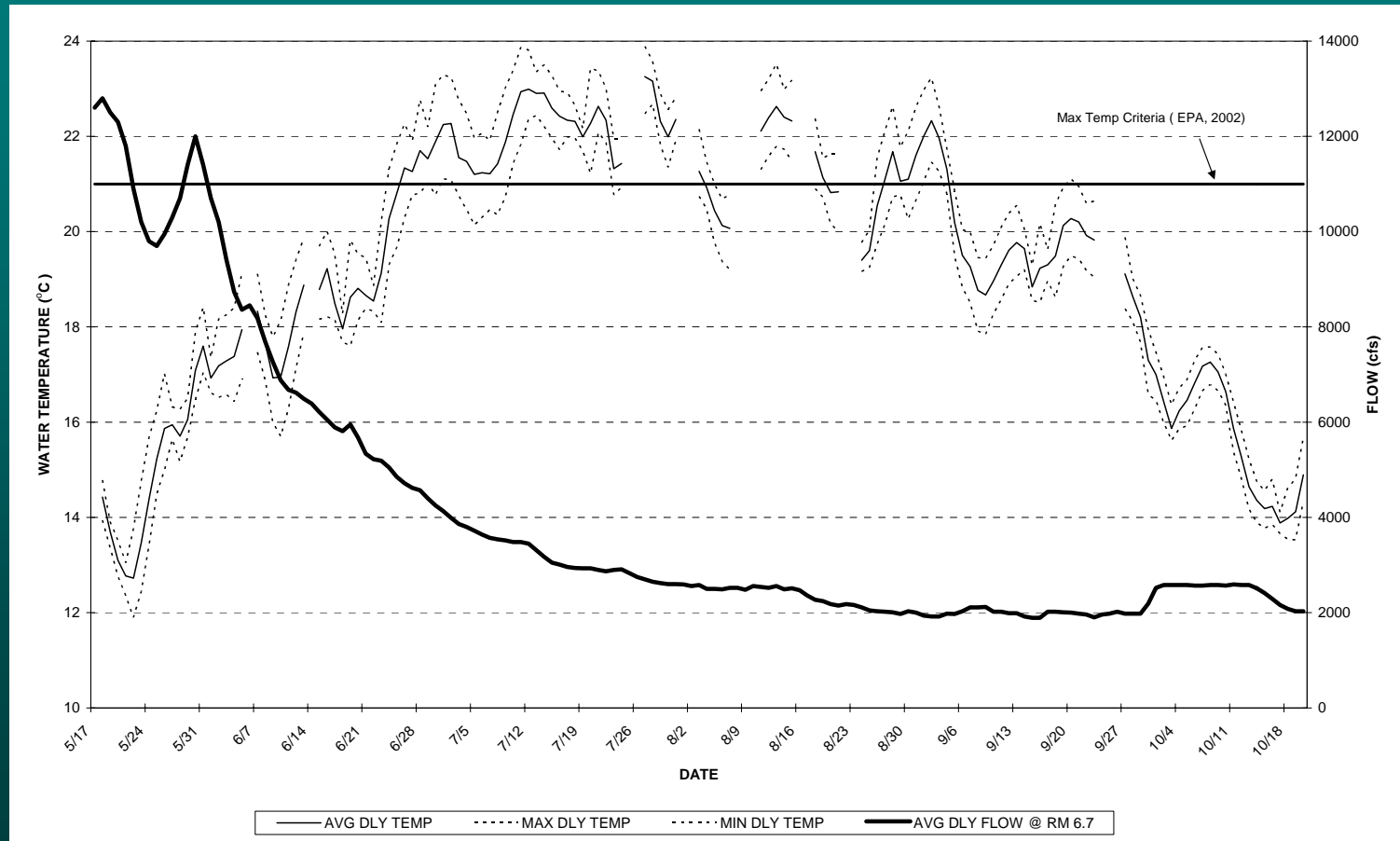


Planning Constraints

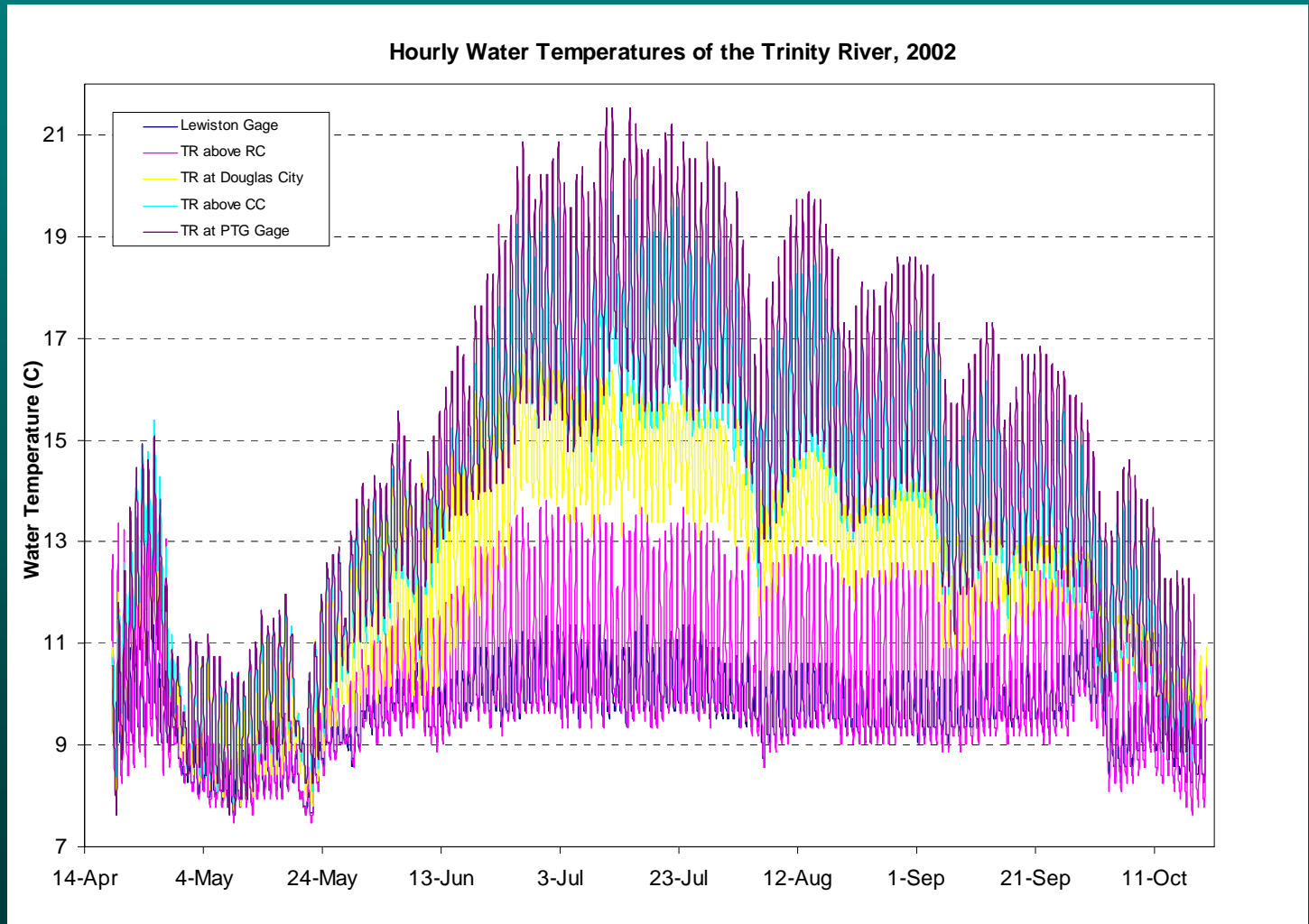
- Management actions limited to the Trinity River only.
- Management action limited to 50,000 acre-feet.
- Plan was an emergency action for fall 2003 only.
- Maximum ramp up and ramp down rates for releases from Lewiston Dam not to exceed criteria established in the Trinity River Mainstem Fishery Restoration EIS / EIR.
- Evaluations of the causative factors for the 2002 fish die-off are not yet complete.



Water Temperature at Terwer, 2002



Water Temperature Variability





Scheduled Releases (cfs) from Iron Gate Dam

Source: Klamath Project 2003 Operations Plan (dated 4/10/2003)

Water Year Type	August	September
Dry	560	731
Below Average	979	1,168



Flows Expected in 2003

Location	Sept. 2001	Sept. 2002	Sept. 2003
Iron Gate Dam	1,026	760	1,168
Lewiston Dam	450	450	450
Trib. Flows	1,125	919	1,022
Klamath @ Terwer	2,601	2,129	2,640





Summary of Expected River Conditions

	2001	2002	2003	Trigger
Flow	2601	2129	2640	3000
Temp	20-23	20-23	20-23	20-23
Run-size	200,579	168,000	113,000	110,000 EST



Decision Criteria for Triggers

Alternative 1:

- Water temperature was determined to be an inappropriate trigger.
- Both run size and river flow criteria should be used to initiate action.
- The proposed river flow and run-size thresholds were determined to be appropriate for implementing an action in 2003.
- Both the run size and river flow triggers have been met and the proactive action will be implemented as described.



Decision Criteria for Triggers

Alternative 2

- Releases from Iron Gate Dam were determined to be a more appropriate trigger to initiate the proactive action
- The trigger for a Proactive Release has not yet been met.
- TRRP staff will maintain contact with Klamath Operations to monitor the trigger.



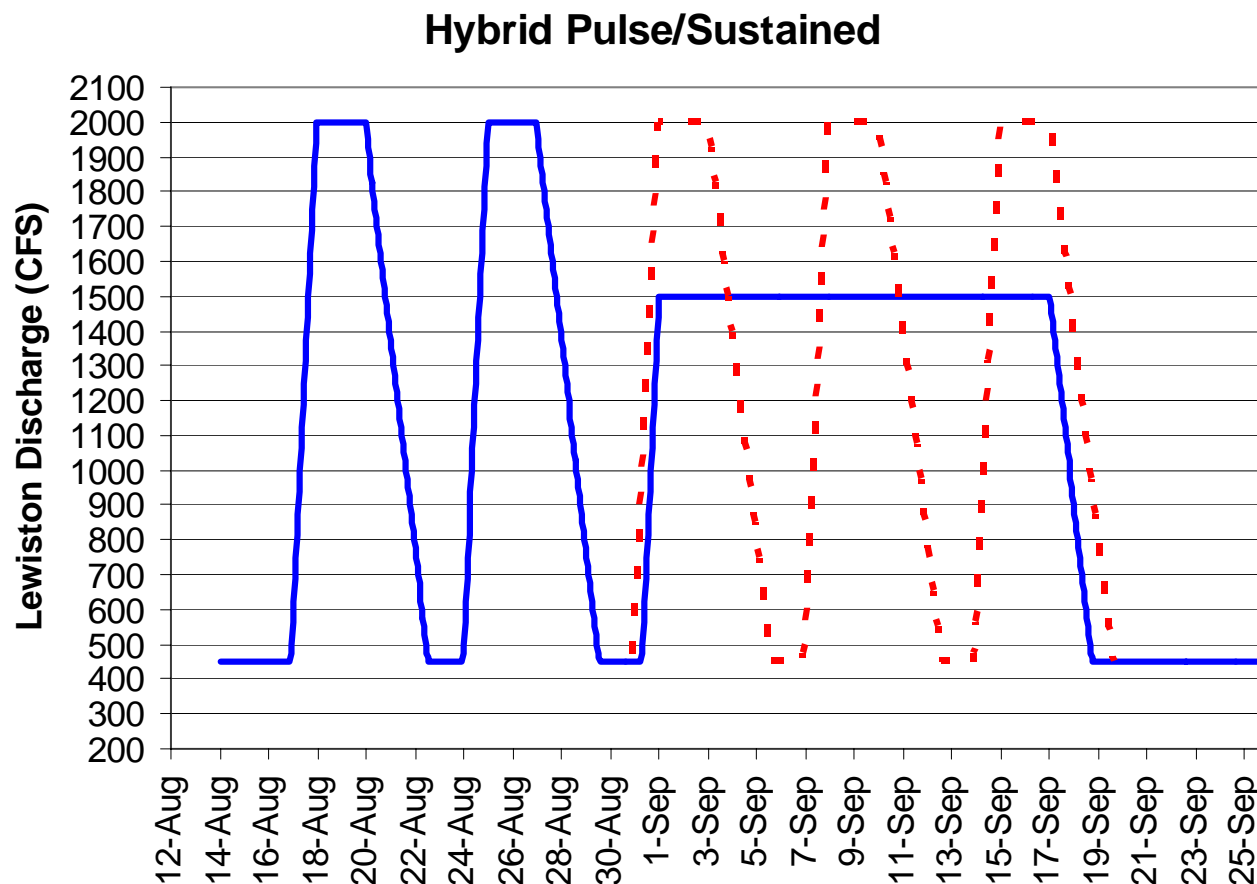


Updates to flow schedule

- **Proactive Release Schedule**
- **“Emergency” Response**



Flow Schedule from March 18th Plan



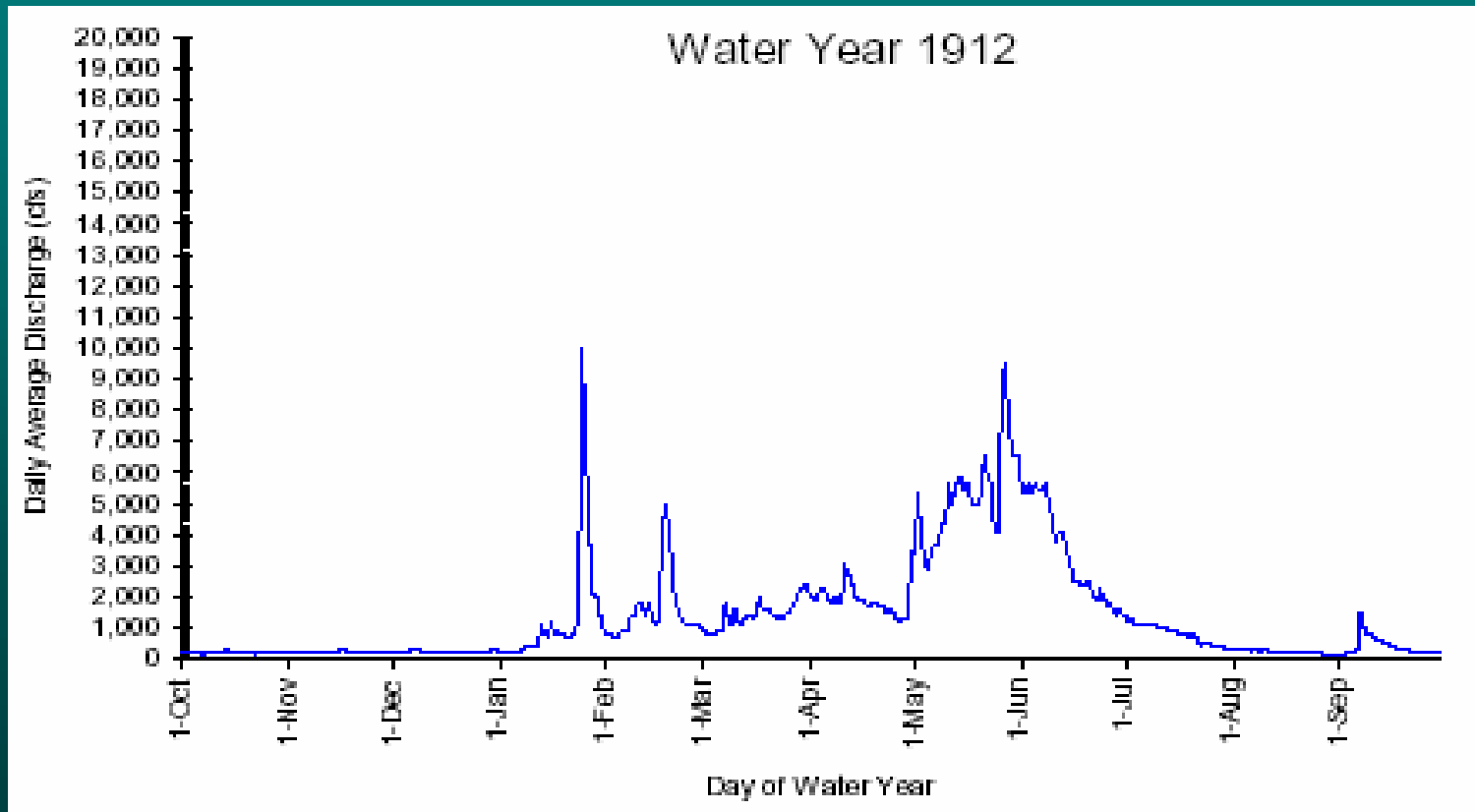


Comments on Pulse Flows

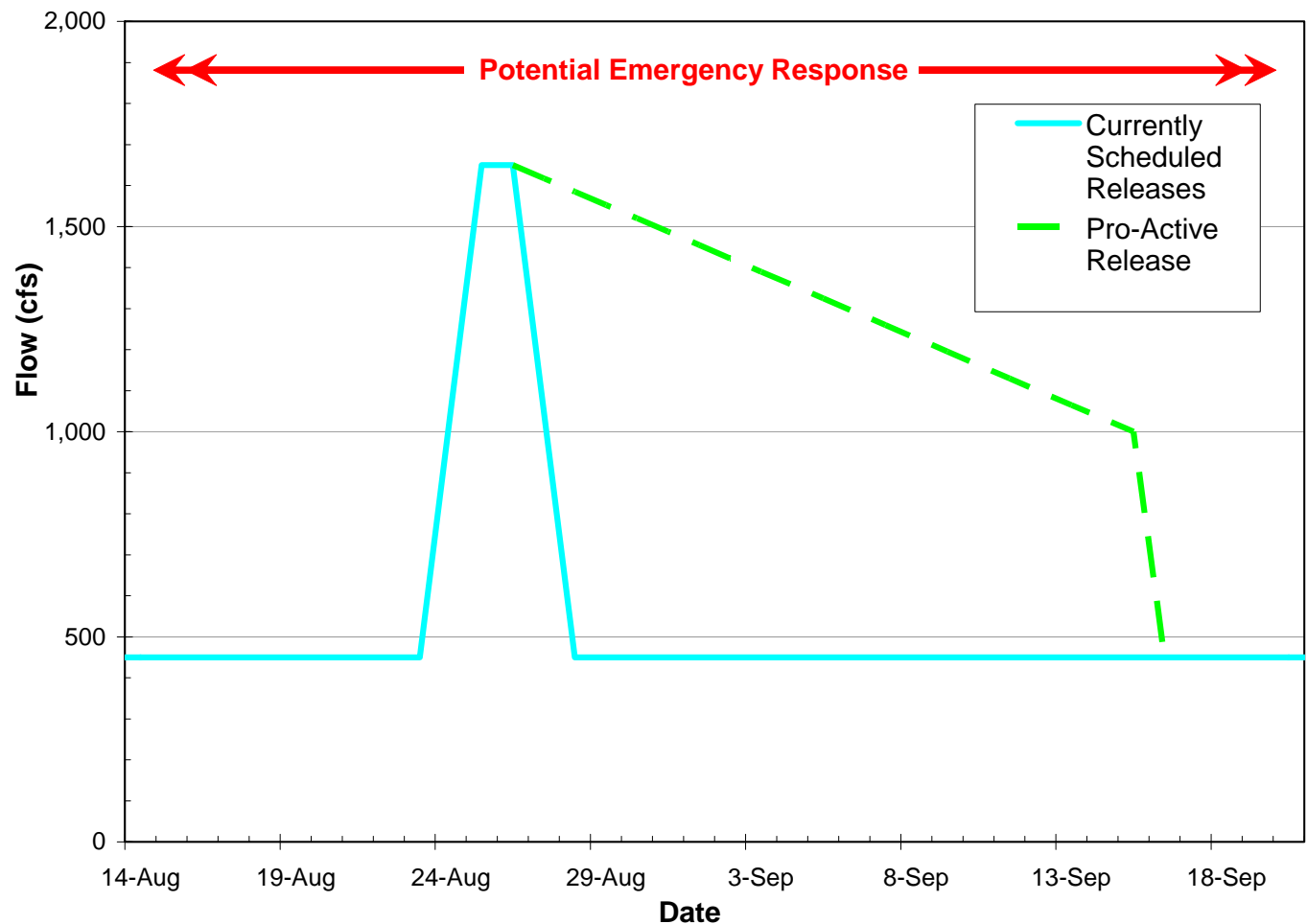
- Effectiveness uncertain
- Potential safety issues
- Concerns for economic impacts
- Timing, duration and magnitude of peaks effects on migration
- Ramping effects
- Stranding
- “unnatural”



Example Unimpaired Hydrograph Trinity River at Lewiston



Updated Proactive Release Schedule



Water Budget

Total Allocation = 50,000 AF

	Preventative Action	Emergency Response
Volume Above Base Flow (AF)	36,800	0 – 50,000
Allocation Used (AF)	33,000	0 – 50,000
Allocation Un-Used (AF)	17,000	0 – 50,000

